

CLAIM AMENDMENTS

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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1. (previously presented) A method for restoration of a patient's tooth which comprises:
generating an electronic image of a patient's tooth in a dentist's office, wherein the image includes color information representative of the patient's tooth shade; and
forwarding the electronic image to a dental laboratory, wherein a technician evaluates the image and suggests restorative options to the dentist.
 2. (previously presented) The method of claim 1 wherein the dentist forwards to the laboratory a preliminary treatment plan along with the electronic image, and the laboratory technician provides feedback on the treatment plan.
 3. (previously presented) The method of claim 2 wherein the image includes information about the patients' tooth color, the preliminary treatment plan includes a determination of at least one matching shade of material to restore the tooth, and the technician either confirms the dentist's determination of restoration material shade or suggests an alternative shade.
 4. (previously presented) The method of claim 3 which further comprises electronically storing color information representative of a plurality of tooth shades on a computer at the dentist office; and comparing the color information of the image with the stored tooth shade color information to identify one or more tooth shades having a combined color that corresponds to the patient's tooth shade before sending the identified color(s) to the laboratory.
 5. (previously presented) The method of claim 4 wherein the image of the patient's tooth is automatically compared to the stored tooth shade color information electronically by the computer.

6. (previously presented) The method of claim 4 wherein the image of the patient's tooth is electronically displayed with color pixels to assist in determining the color of the patient's tooth shade.

7. (previously presented) The method of claim 6 wherein the patient's tooth shade is determined by selecting one or more pixels of the image, which pixels correspond to differential spatial locations of the patient's tooth, that provide similar color information and electronically comparing that color information with the stored tooth shade color information to determine the color of that portion of the patient's tooth.

8. (previously presented) The method of claim 7 wherein selection of the pixel(s) is repeated until a tooth shade color is determined for all spatial locations of the image of the patient's tooth, with the patient's tooth shade being determined by averaging the color information at selected pixel locations of the image before electronically comparing the averaged color information with the stored tooth shade color information.

9. (previously presented) The method of claim 4 which further comprises utilizing a digital camera to obtain the image of the patient's tooth and utilizing the same camera to obtain the color information of the tooth shades before electronically storing the color information.

10. (previously presented) A method for restoration of a patient's tooth which comprises:
generating an electronic image of a patient's tooth or tooth preparation in a dentist's office, wherein the image includes color information representative of the patient's tooth shade; and

forwarding the electronic image to a dental laboratory by direct computer link or e-mail, wherein a technician evaluates the image and suggests restorative options to the dentist.

11. (previously presented) A method for restoration of a patient's tooth which comprises:
generating an electronic image of a patient's tooth preparation in a dentist's office, wherein the image includes color information representative of the patient's tooth shade; and

forwarding the electronic image to a dental laboratory, wherein a technician evaluates the image and suggests restorative options to the dentist, including whether further preparation is required.

12. (previously presented) The method of claim 11, wherein the dentist or technician accesses an interactive website to review step-by-step procedures to determine an appropriate restorative procedure and to obtain feedback for any specific dental needs for the patient's tooth.

13. (previously presented) The method of claim 11, wherein the laboratory technician suggests restoration materials and treatment modalities for completing the restoration of the patient's tooth.

14. (previously presented) The method of claim 13, wherein the dentist accesses an interactive website to obtain preparation information, identify tools to carry out the preparation, or to identify sources where tools or materials for use in the restoration may be obtained.

15. (previously presented) The method of claim 11 wherein the laboratory technician prepares a dental prosthesis; takes an image of the prosthesis; and compare the prosthesis image to the image provided by the dentist before the prosthesis is permanently placed in the patient.

16. (previously presented) The method of claim 15 wherein the laboratory manufactures the prosthesis utilizing a plurality of porcelain coatings.

17. (previously presented) The method of claim 15 wherein the image of the prosthesis provides color information that is compared to the image of the patient's tooth to confirm color matching.

Claim 18 (new): An interactive dental restoration method between a dentist and a dental restoration laboratory which comprises:

identifying a dental restoration need in a patient;

creating a digitized image in computer readable format of at least a portion of a tooth of the patient;

transferring the digitized image to a software program on a computer;

creating a patient file on the computer containing the digitized image;

designing a preliminary treatment plan that includes design criteria for preparation of a dental prosthesis to be placed in the patient to satisfy the dental restoration need, the designing step including at least the steps of:

enhancing the digitized image using the software program to create an enhanced image, and

adding text information to the image;

transmitting the preliminary treatment plan via e-mail using the software program over a communications network to a dental restoration laboratory; and

directly communicating between the dentist and dental restoration laboratory over the communications network, wherein the dentist and dental restoration laboratory simultaneously have access to the enhanced digital image.

Claim 19 (new): The method of claim 18, wherein the enhancing step includes adjusting predetermined or user defined areas of the tooth image.

Claim 20 (new): The method of claim 18, wherein the enhancing step includes performing at least one filtering operation on the image.

Claim 21 (new): The method of claim 18, wherein the communications network includes the internet.

Claim 22 (new): The method of claim 18, wherein the communications network includes a direct connection between the dentist and dental restoration laboratory.

Claim 23 (new): The method of claim 18, wherein the computer is a database including stored patient information for a plurality of patients.

Claim 24 (new): The method of claim 23, wherein the computer is located in the dentist's office.

Claim 25 (new): The method of claim 18, wherein the text information includes a label.

Claim 26 (new): The method of claim 18, wherein the text information includes prosthesis materials.

Claim 27 (new): The method of claim 18, wherein the design criteria includes digital image representations of dental restoration need.

Claim 28 (new): The method of claim 18, wherein the design criteria includes proposed decay excavation.

Claim 29 (new): The method of claim 18, wherein the design criteria includes tooth preparation information.

Claim 30 (new): The method of claim 18, wherein the design criteria includes prosthesis color information.

Claim 31 (new): The method of claim 18, further comprising the step of communicating a final treatment plan, including modifications to the preliminary treatment plan, if necessary, to the dentist.

Claim 32 (new): An interactive dental restoration method between a dentist and a dental restoration laboratory which comprises:

identifying a dental restoration need in a patient;

designing a preliminary treatment plan that includes design criteria for preparation of a dental prosthesis to be placed in the patient to satisfy the dental restoration need;

transmitting the preliminary treatment plan via a communications network to a dental restoration laboratory; and

communicating a final treatment plan, including modifications to the preliminary treatment plan, if necessary, to the dentist.

Claim 33 (new): The method of claim 32 wherein the dentist prepares the preliminary treatment plan and the design criteria include digital image representations of the dental restoration need.

Claim 34 (new): The method of claim 33, further comprising the step of evaluating the preliminary treatment plan at the laboratory before communicating the final treatment plan to the dentist.

Claim 35 (new): The method of claim 34, further comprising the steps of implementing the final treatment plan in the patient and transmitting interim preparation information to the laboratory for survey with confirmation prior to completing the final treatment plan.

Claim 36 (new): The method of claim 35 wherein the design criteria include tooth preparation and proposed decay excavation.

Claim 37 (new): The method of claim 36, further comprising the step of communicating a confirmation or modification of the acceptability of one or more of the proposed design criteria from the laboratory to the dentist.